

-- As regards optical elements in exposure apparatuses such as lenses or mirrors, for example, there frequently occurs adhesion of depositions on the surface of an optical element due to impurities contained in a surrounding ambience. It is known that, typically, ammonium sulfate or silicon dioxide, for example, is deposited on the surface of an optical element. The product source, inside a clean room, may be ammonia vapor produced from a concrete, sulfuric acid used for removal of a resist, sulfur oxides usually contained in an atmosphere, or silicon resin used in a wall material or floor material. Inside an exposure apparatus, on the other hand, the source may be hexamethyldisilazane (HMDS), for example, used as a contact enhancing agent with a resist.

81 In order to remove these impurities contained in the air inside the clean room or in the exposure apparatus, a filter or the like may be provided in an air circulating mechanism, for example. However, there are many structural components, other than optical elements, disposed inside the exposure apparatus. Further, a gas produced from a resist may be a source of depositions. For these reasons, it is very difficult to completely remove impurity gases which cause depositions. In consideration of this, optical elements in each unit are accommodated in a container so that they are isolated from a surrounding exposure apparatus chamber ambience, and the inside of the container is purged by a gas not containing impurities, to prevent contamination of the optical elements. --

Please substitute the paragraph beginning at page 4, line 16, and ending on page 5, line 16, with the following. A marked-up copy of this paragraph, showing the changes made thereto, is attached in Appendix A.

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-- In these methods, a gas product from a wafer is rather conveyed to the lens surface, along the gas flow, such that sufficient contamination prevention is not attainable. Japanese Laid-Open Patent Application, Laid-Open No. 260385/1994 shows a method in which an inactive gas is supplied through a supply port provided on a stage, in parallel to a wafer and, simultaneously, a gas is supplied toward the wafer from the bottom end of a projection optical system, in parallel to the optical axis. This method has paid particular note to an oxygen concentration in the space from the projection optical system to the wafer, but the efficiency itself regarding contamination prevention at the bottom face of the projection optical system is not so good. Between a projection lens and the surface of a wafer, measurement light for measuring the imaging position passes. Any change in temperature or pressure of an ambience in the space through which the measurement light passes leads to a measurement error, and this applies a large influence to the position adjustment for the wafer imaging position. Further, a change in temperature or pressure of the ambience is also influential to the imaging performance. For these reasons, the flow of a gas of a large flow rate or any fluctuation in pressure or temperature causes an error of the wafer position adjustment and degradation of the imaging performance. --

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IN THE CLAIMS:

Please CANCEL claims 53-76 without prejudice to or disclaimer of the recited subject matter.